

2N6045

GENERAL DESCRIPTION

- Silicon NPN medium power Darlington transistors in a plastic envelope, primarily for use in low-speed switching and general purpose.
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

NPN

Silicon Power Darlington Transistor

QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITION	MIN	MAX	UNIT
V _{CESM}	Collector-emitter voltage peak value	V _{BE} =0V	100		V
V _{CEO}	Collector-emitter voltage (open base)		100		V
I _C	Collector current (DC)		8.0		A
I _{CM}	Collector current peak value		16		A
P _{TOT}	Total power dissipation	T _{mb} <=25°C	75		W
V _{CEsat}	Collector-emitter saturation voltage	I _C =8A; I _B =0.08A		4.0	V
I _{CSat}	Collector saturation current				A
V _{BE}	Emitter forward voltage	I _E =8A			V
t _f	Fall time	I _C =3.0A; I _{B1} =-I _{B2} =0.3A; V _{CC} =30V			us

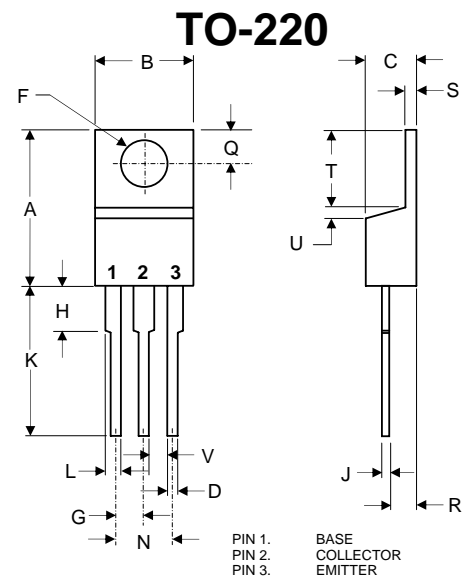
LIMITING VALUES

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CESM}	Collector-emitter voltage peak value	V _{BE} =0V		100	V
V _{CEO}	Collector-emitter voltage (open base)			100	V
V _{EBO}	Emitter-base voltage (open collector)			5	V
I _C	Collector current (DC)			8	A
I _B	Base current(DC)			0.12	A
I _{EM}	Base current peak value				A
P _{TOT}	Total power dissipation	T _{mb} <=25°C		75	W
T _{stg}	Storage temperature		-60	150	°C
T _j	Junction temperature		-60	150	°C

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITION	MIN	MAX	UNIT
I _{CB0}	Collector-base cut-off current	V _{CB} =100V		20	uA
I _{EBO}	Emitter-base cut-off current	V _{EB} =5V		2.0	mA
V _{BRVCEO}	Collector-emitter breakdown voltage	I _C =100mA	100		V
V _{CEsat1}	Collector-emitter saturation voltage	I _C =3.0A, I _B =12mA		2.0	V
V _{CEsat2}	Collectoremitter saturation voltage	I _C =8A, I _B =80mA		4.0	V
h _{FE1}	DC current gain	I _C =3A, V _{CE} =4V	1000	20000	
h _{FE2}	DC current gain	I _C =8A, V _{CE} =4V	1000		
f _T	Transition frequency at f=1MHz	I _C =0.5A, V _{CE} =4V			MHz
C _c	Collector capacitance at f=1MHz	V _{CB} =10V			pF
t _{ON}	On times	I _C =3A, I _B =0.3A, V _{CC} =30V			us
t _S	Turn-off storage time	I _C =3A, I _B =0.3A, V _{CC} =30V			us
t _F	Fall time	I _C =3A, I _B =0.3A, V _{CC} =30V			us

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	∅
G	.190	.110	2.29	2.79	
H	---	.250	---	6.35	
J	.012	.025	0.30	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.43	
R	.080	.115	2.04	2.92	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	----	.050	----	1.27	
V	.045	----	1.15	----	



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Ordering Information :

Device	Packing
Part Number-BP	Bulk; 1Kpcs/Box

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